

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) An apparatus for separating gas from a liquid path, comprising:

a chamber housing defining a chamber capable of holding at least one of liquid and gas, the chamber having a top wall, a bottom wall and side walls, and the chamber comprising:

a first chamber opening in one of the walls configured to allow at least one of gas and liquid to enter the chamber;

a second chamber opening in one of the walls configured to allow at least gas to exit the chamber, the second chamber opening being located in a middle portion in a length of a top portion of the chamber; and

a third chamber opening in one of the walls configured to allow liquid to exit the chamber, the third chamber opening being located in a middle portion of a bottom portion of the chamber; and

a plurality of channels being formed within the housing, each of the plurality of channels being in fluid communication with one of the first chamber opening, the second chamber opening and the third chamber opening,

wherein the chamber is structured to allow uninhibited fluid communication between the first, second and third chamber openings.

2. (Canceled)

3. (Previously Presented) The apparatus of claim 1, wherein the housing includes at least first, second and third housing openings.

4. (Previously Presented) The apparatus of claim 3, wherein the first housing opening is in fluid communication with the first chamber opening, the second housing opening is in fluid communication with the second chamber opening, and the third housing opening is in fluid communication with the third chamber opening.

5. (Previously Presented) An apparatus for separating gas from a liquid path, comprising:

a chamber housing defining a chamber capable of holding at least one of liquid and gas, the chamber having a top wall, a bottom wall and side walls, and the chamber comprising:

a first chamber opening in one of the walls configured to allow at least one of gas and liquid to enter the chamber;

a second chamber opening in one of the walls configured to allow at least gas to exit the chamber, the second chamber opening being located in a middle portion in a length of a top portion of the chamber; and

a third chamber opening in one of the walls configured to allow liquid to exit the chamber, the third chamber opening being located in a middle portion of a bottom portion of the chamber; and

a plurality of channels being formed within the housing, each of the plurality of channels being in fluid communication with one of the first chamber opening, the second chamber opening and the third chamber opening, wherein:

the chamber is structured to allow uninhibited fluid communication between the first, second and third chamber openings,

the housing includes at least first, second and third housing openings,

the first housing opening is in fluid communication with the first chamber opening, the second housing opening is in fluid communication with the second chamber

opening, and the third housing opening is in fluid communication with the third chamber opening, and

the first and third housing openings are located on a same side wall of the housing.

6. (Previously Presented) The apparatus of claim 5, wherein the first and third housing openings are located at opposite ends of the same side wall.

7. (Previously Presented) The apparatus of claim 6, wherein the second housing opening is located on the same side wall substantially midway between the first and third openings.

8. (Previously Presented) The apparatus of claim 7, wherein the first, second and third housing openings are located at or near a top of the same side wall.

9. (Original) The apparatus of claim 8, wherein the first, second and third housing openings are oriented substantially on the same plane.

10. (Previously Presented) The apparatus of claim 1, wherein the housing includes at least one connection device, wherein the at least one connection device allows connection with at least one of a tube frame, an organ or tissue transporter, and organ or tissue perfusion apparatus, and an organ or tissue diagnostic device.

11. (Previously Presented) The apparatus of claim 1, wherein at least a part of the housing is transparent.

12. (Previously Presented) The apparatus of claim 3, wherein tubing is connectible to each of the housing openings to be in fluid communication with the openings.

13. (Original) The apparatus of claim 12, further comprising a sensor, wherein the sensor is capable of detecting a gas in the tubing connectible to at least one of the first and third housing openings.

14. (Original) The apparatus of claim 13, further comprising a flow control valve associated with the third housing opening, wherein the flow control valve prevents liquid from exiting the chamber through tubing connectible to the third housing opening when gas is detected.

15. (Original) The apparatus of claim 14, further comprising a flow control valve associated with the tubing connected to the second housing opening, wherein the flow control valve is open when gas is detected to allow gas to leave the chamber.

16. (Original) The apparatus of claim 13, wherein the sensor is an ultrasonic sensor.

17. (Original) The apparatus of claim 13, further comprising a pump for moving the at least one of liquid and gas through the tubing, wherein the pump stops the flow of the at least one of liquid and gas into the first housing opening when the sensor detects gas in the tubing connectible to the third housing opening.

18. (Original) The apparatus of claim 12, wherein the tubing is connectible to at least one of a tube frame, an organ or tissue transporter, and organ or tissue perfusion apparatus, and an organ or tissue diagnostic device.

19. (Previously Presented) The apparatus of claim 4, wherein the plurality of channels includes an entrance channel having a first end and a second end, wherein the first end is in fluid communication with the first housing opening and the second end is in fluid communication with the first chamber opening.

20. (Previously Presented) An apparatus for separating gas from a liquid path, comprising:

a chamber housing defining a chamber capable of holding at least one of liquid and gas, the chamber having a top wall, a bottom wall and side walls, and the chamber comprising:

a first chamber opening in one of the walls configured to allow at least one of gas and liquid to enter the chamber;

a second chamber opening in one of the walls configured to allow at least gas to exit the chamber, the second chamber opening being located in a middle portion in a length of a top portion of the chamber; and

a third chamber opening in one of the walls configured to allow liquid to exit the chamber, the third chamber opening being located in a middle portion of a bottom portion of the chamber; and

a plurality of channels being formed within the housing, each of the plurality of channels being in fluid communication with one of the first chamber opening, the second chamber opening and the third chamber opening, wherein:

the chamber is structured to allow uninhibited fluid communication between the first, second and third chamber openings,

the housing includes at least first, second and third housing openings,

the first housing opening is in fluid communication with the first chamber opening, the second housing opening is in fluid communication with the second chamber opening, and the third housing opening is in fluid communication with the third chamber opening,

the plurality of channels includes an entrance channel having a first end and a second end, wherein the first end is in fluid communication with the first housing opening and the second end is in fluid communication with the first chamber opening, and

the first housing opening is located at or near the top portion of the housing and the first chamber opening is at or near the bottom portion of the chamber.

21. (Original) The apparatus of claim 20, wherein at least a portion of the entrance channel is approximately vertical.

22. (Original) The apparatus of claim 21, wherein the approximately vertical portion of the channel extends approximately a height of the chamber.

23. (Original) The apparatus of claim 21, wherein at least a portion of the entrance channel near the second end is curved.

24. (Previously Presented) The apparatus of claim 4, wherein the plurality of channels includes an exit channel having a first exit channel end and a second exit channel end, wherein the first exit channel end is in fluid communication with the third chamber opening and the second exit channel end is in fluid communication with the third housing opening.

25. (Previously Presented) An apparatus for separating gas from a liquid path, comprising:

a chamber housing defining a chamber capable of holding at least one of liquid and gas, the chamber having a top wall, a bottom wall and side walls, and the chamber comprising:

a first chamber opening in one of the walls configured to allow at least one of gas and liquid to enter the chamber;

a second chamber opening in one of the walls configured to allow at least gas to exit the chamber, the second chamber opening being located in a middle portion in a length of a top portion of the chamber;

a third chamber opening in one of the walls configured to allow liquid to exit the chamber, the third chamber opening being located in a middle portion of a bottom portion of the chamber; and

a plurality of channels being formed within the housing, each of the plurality of channels being in fluid communication with one of the first chamber opening, the second chamber opening and the third chamber opening, wherein:

the chamber is structured to allow uninhibited fluid communication between the first, second and third chamber openings,

the housing includes at least first, second and third housing openings,

the first housing opening is in fluid communication with the first chamber opening, the second housing opening is in fluid communication with the second chamber opening, and the third housing opening is in fluid communication with the third chamber opening,

the plurality of channels includes an exit channel having a first exit channel end and a second exit channel end, wherein the first exit channel end is in fluid communication with the third chamber opening and the second exit channel end is in fluid communication with the third housing opening, and

at least a portion of the exit channel is approximately horizontal and the third chamber opening is in fluid communication with the approximately horizontal portion of the exit channel by the first end of the exit channel.

26. (Original) The apparatus of claim 25, wherein at least a portion of the exit channel is approximately vertical and one end of the approximately vertical portion is in fluid communication with the approximately horizontal portion and another end of the substantially vertical portion is in fluid communication with the third housing opening.

27. (Original) The apparatus of claim 26, wherein the approximately vertical and horizontal portions are connected by a curved portion of the exit channel.

28. (Original) The apparatus of claim 25, wherein the approximately horizontal portion of the exit channel extends approximately $\frac{1}{2}$ the length of the bottom wall of the chamber.

29. (Original) The apparatus of claim 26, wherein the approximately vertical portion of the exit channel extends approximately the height of a side wall of the chamber.

30. (Previously Presented) An apparatus for separating gas from a liquid path, comprising:

a chamber housing defining a chamber capable of holding at least one of liquid and gas, the chamber having a top wall, a bottom wall and side walls, and the chamber comprising:

a first chamber opening in one of the walls configured to allow at least one of gas and liquid to enter the chamber;

a second chamber opening in one of the walls configured to allow at least gas to exit the chamber, the second chamber opening being located in a middle portion in a length of a top portion of the chamber; and

a third chamber opening in one of the walls configured to allow liquid to exit the chamber, the third chamber opening being located in a middle portion of a bottom portion of the chamber; and

a plurality of channels being formed within the housing, each of the plurality of channels being in fluid communication with one of the first chamber opening, the second chamber opening and the third chamber opening, wherein

the chamber is structured to allow uninhibited fluid communication between the first, second and third chamber openings,

the housing includes at least first, second and third housing openings,

the first housing opening is in fluid communication with the first chamber opening, the second housing opening is in fluid communication with the second chamber opening, and the third housing opening is in fluid communication with the third chamber opening, and

the plurality of channels includes:

an entrance channel having a first end and a second end, wherein the first end is in fluid communication with the first housing opening located at or near a top portion of the housing and the second end is in fluid communication with the first chamber opening located at or near the bottom of the chamber, wherein at least a portion of the entrance channel is approximately vertical and extends approximately a height of the chamber and at least a portion of the entrance channel near the second end is curved; and

an exit channel having a first exit channel end and a second exit channel end, wherein the first exit channel end is in fluid communication with the third chamber opening and the second exit channel end is in fluid communication with the third housing opening, wherein at least a portion of the exit channel is approximately horizontal and the third chamber opening is in fluid communication with the approximately horizontal portion of the exit channel by the first end of the exit channel, at least a portion of the exit channel is approximately vertical and one end of the approximately vertical portion is in fluid communication with the approximately horizontal portion and another end of the substantially vertical portion is in fluid communication with the third housing opening, the approximately vertical and horizontal portions are connected by a curved portion of the exit channel, wherein the approximately horizontal portion of the exit channel extends approximately $\frac{1}{2}$ the length of the bottom wall of the chamber and the approximately vertical portion of the exit channel extends approximately the height of a side wall of the chamber.

31. (Withdrawn) A method for separating gas from a liquid path in a chamber housing that defines a chamber capable of holding at least one of liquid and gas, the chamber including a top wall, a bottom wall, and side walls, the method comprising:

supplying at least one of liquid and gas to the chamber through a first chamber opening in one of the walls;

removing gas from the chamber through a second chamber opening in one of the walls located in a middle portion in a length of a top portion of the chamber;

removing liquid from the chamber through a third chamber opening in one of the walls located in a middle portion of a bottom portion of the chamber, maintaining enough liquid in the chamber that when the chamber is tilted at an angle up to approximately 90 degrees, only liquid leaves the chamber through the third chamber opening,

wherein each of the chamber openings is in fluid communication with one of a plurality of channels formed within the chamber housing, and

wherein the chamber is structured to allow uninhibited fluid communication between the first, second and third chamber openings.

32. (Withdrawn) The method of claim 31, wherein only gas leaves the chamber through the second chamber opening when the housing is tilted at an angle up to approximately 90 degrees.

33. (Withdrawn) The method of claim 32, wherein and only liquid leaves the chamber through the third chamber opening and only gas leaves the chamber through the second chamber opening when the housing is tilted at an angle from approximately 85 to approximately 90 degrees.

34. (Withdrawn) The method of claim 31, wherein the chamber is structured to allow uninhibited fluid communication between the first chamber opening, the second chamber opening and the chamber third chamber opening.

35. (Withdrawn) The method of claim 34,
wherein the plurality of channels includes an entrance channel having a first end and a second end, the entrance channel connecting the first chamber opening with a first housing opening in the housing, and

wherein the first end is connected to the first housing opening and the second end is connected to the first chamber opening.

36. (Withdrawn) The method of claim 34,

wherein the plurality of channels includes an exit channel having a first end and a second end, the exit channel connecting the third chamber opening with a third housing opening, and

wherein the first exit channel end is connected to the third chamber opening and the second exit channel end is connected to a third housing opening.

37. (Withdrawn) The method of claim 36, wherein the second chamber opening is connected to a second housing opening.

38. (Withdrawn) The method of claim 37, wherein the first, second, and third housing openings are located on a same wall of the housing.

39. (Withdrawn) The method of claim 38, wherein the first, second, and third housing openings are oriented on substantially the same plane.

40. (Withdrawn) The method of claim 34, further comprising connecting the housing to at least one of a tube frame, an organ or tissue transporter, and organ or tissue perfusion apparatus, and an organ or tissue diagnostic device.

41. (Withdrawn) The method of claim 34, further comprising connecting tubing to at least one of first, second, and third housing openings.

42. (Withdrawn) The method of claim 41, further comprising detecting gas in at least one of the tubing connected to the first and third housing openings.

43. (Withdrawn) The method of claim 42, further comprising closing a flow control valve associated with the third housing opening when gas is detected, thereby effectively preventing liquid from exiting the housing through the tubing connected to the third housing opening.

44. (Withdrawn) The method of claim 43, further comprising opening a flow control valve associated with the tubing connected to the second housing opening when the flow control valve associated with the third housing opening is closed, thereby effectively removing gas from the chamber.

45. (Withdrawn) The method of claim 44, wherein the opening and closing of the flow control valves occurs at preset time intervals.

46. (Withdrawn) The method of claim 45, wherein the gas in the tubing is detected by a sensor.

47. (Withdrawn) The method of claim 46, further comprising opening and closing the flow control valves as a result of a signal sent by the sensor.

48. (Withdrawn) The method of 46, wherein the sensor is an ultrasonic sensor.

49. (Withdrawn) The method of 42, further comprising stopping the flow of the at least one of liquid and gas into the first housing opening when gas is detected in the tubing connected to the third housing opening.

50. (Withdrawn) The method of claim 41, further comprising connecting the tubing to at least one of a tube frame, an organ or tissue transporter, and organ or tissue perfusion apparatus, and an organ or tissue diagnostic device.

51. (Withdrawn) The method of claim 34, further comprising forming the housing by mating a plurality of sections.

52. (Withdrawn) The method of claim 51, further comprising melting an energy director to hermetically seal the sections.

53. (Withdrawn) The method of claim 52, wherein the energy director is melted by ultrasonic welding.

54. (Withdrawn) The method of claim 34, wherein when the housing is tilted at an angle between approximately 45 degrees and approximately 90 degrees, only gas leaves

the chamber through the second chamber opening and only liquid leaves the chamber through the third chamber opening.

55. (Withdrawn) The method of claim 34, wherein when the housing is tilted at an angle approximately 70 degrees, only gas leaves the chamber through the second chamber opening and only liquid leaves the chamber through the third chamber opening.

56. (Previously Presented) An apparatus for transporting an organ or tissue, comprising:

an organ or tissue transporter;

a chamber housing defining a chamber capable of holding at least one of liquid and gas, the chamber housing connectible to the organ transporter, the chamber having a top wall, a bottom wall and side walls capable of holding at least one of liquid and gas and the chamber comprising:

a first chamber opening in one of the walls configured to allow at least one of gas and liquid to enter the chamber;

a second chamber opening in one of the walls configured to allow at least gas to exit the chamber, the second chamber opening being located in a middle portion in a length of a top portion of the chamber; and

a third chamber opening in one of the walls configured to allow liquid to exit the chamber, the third chamber opening being located in a middle portion of a bottom portion of the chamber; and

a plurality of channels being formed within the housing, each of the plurality of channels being in fluid communication with one of the first chamber opening, the second chamber opening and the third chamber opening,

wherein the chamber is structured to allow uninhibited fluid communication between the first, second and third chamber openings.

57. (Previously Presented) The apparatus of claim 56, wherein the housing includes at least one connection device connectible to the organ transporter, and the chamber is structured to allow inhibited fluid communication between the first chamber opening, the second chamber opening and the third chamber opening.

58. (Previously Presented) The apparatus of claim 57, wherein the housing includes at least first, second and third housing openings and tubing that is connectible to each of the first, second, and third housing openings.

59. (Original) The apparatus of claim 58, further comprising a sensor, wherein the sensor is capable of detecting a gas in the tubing.

60. (Original) The apparatus of claim 59, further comprising a flow control valve connectible to the organ transporter and associated with the tubing connectible to the third housing opening, wherein the flow control valve prevents liquid from exiting the chamber through tubing connectible to the third housing opening when gas is detected.

61. (Original) The apparatus of claim 59, further comprising a flow control valve connectible to the organ transporter and associated with the tubing connectible to the second housing opening, wherein the flow control valve is open when gas is detected to allow gas to leave the chamber.

62. (Original) The apparatus of claim 59, wherein the sensor is an ultrasonic sensor.

63. (Previously Presented) The apparatus of claim 59, further comprising a pump connectible to the organ transporter for moving the at least one of liquid and gas through the tubing, wherein the pump stops the flow of the at least one of liquid and gas into the first housing opening when the sensor detects gas in the tubing connectible to the third housing opening.

64. (Original) The apparatus of claim 58, wherein the housing and the tubing are connectible to a tube frame capable of holding at least a plurality of tubes, wherein the tube frame is connectible to the organ transporter.

65. (Previously Presented) The apparatus of claim 1, wherein the first chamber opening is located in the bottom portion of the chamber.

66. (Previously Presented) The apparatus of claim 56, wherein the first chamber opening is located in the bottom portion of the chamber.

67. (New) The apparatus of claim 3, further wherein:

one of the plurality of channels extends from the first chamber opening to below the chamber, turns, and connects to the first housing opening at a top portion of the housing.

68. (New) The apparatus of claim 3, further comprising:

one of the plurality of channels extends from the third chamber opening to below the chamber, extends along the bottom wall, turns and extends along one of the side walls, and connects to the third housing opening at a top portion of the housing.

69. (New) The apparatus of claim 3, further comprising:

a first channel of the plurality of channels extends from the first chamber opening to below the chamber, turns, and connects to the first housing opening at a top portion of the housing, and

a second channel of the plurality of channels extends from the third chamber opening to below the chamber, extends along the bottom wall, turns and extends along one of the side walls, and connects to the third housing opening at a top portion of the housing.

70. (New) The apparatus of claim 1, further comprising:

a perfusion circuit connected to the chamber, and a liquid in the perfusion circuit and chamber in a quantity sufficient to fill the chamber to a level that is lower than the second chamber opening when the apparatus is on a level support.

71. (New) An apparatus for separating gas from a liquid path, comprising:
- a chamber housing defining a chamber capable of holding at least one of liquid and gas;
 - a first chamber opening configured to allow at least one of gas and liquid to enter the chamber;
 - a second chamber opening configured to allow at least gas to exit the chamber;
 - a third chamber opening configured to allow liquid to exit the chamber; and
 - a liquid at a level that is below the second chamber opening and above the third chamber opening when the apparatus is tilted at an angle up to 70° in any direction.
72. (New) The apparatus of claim 71, wherein:
- the chamber has a top wall, a bottom wall and side walls;
 - the first chamber opening is in one of the side walls;
 - the second chamber opening is in one of the side walls and located in a middle portion in a length of a top portion of the chamber; and
 - the third chamber opening is located in a middle portion of a bottom portion of the chamber; and
 - a plurality of channels are formed within the housing, each of the plurality of channels being in fluid communication with one of the first chamber opening, the second chamber opening and the third chamber opening,
 - wherein the chamber is structured to allow uninhibited fluid communication between the first, second and third chamber openings.

73. (Original) The apparatus of claim 5, further comprising a sensor, wherein tubing is connectible to each of the housing openings to be in fluid communication with the openings and the sensor is capable of detecting a gas in the tubing connectible to at least one of the first and third housing openings.

74. (Original) The apparatus of claim 20, further comprising a sensor, wherein tubing is connectible to each of the housing openings to be in fluid communication with the openings and the sensor is capable of detecting a gas in the tubing connectible to at least one of the first and third housing openings.

75. (Original) The apparatus of claim 25, further comprising a sensor, wherein tubing is connectible to each of the housing openings to be in fluid communication with the openings and the sensor is capable of detecting a gas in the tubing connectible to at least one of the first and third housing openings.

76. (Original) The apparatus of claim 30, further comprising a sensor, wherein tubing is connectible to each of the housing openings to be in fluid communication with the openings and the sensor is capable of detecting a gas in the tubing connectible to at least one of the first and third housing openings.

77. (Original) The apparatus of claim 56, further comprising a sensor, wherein tubing is connectible to each of the channels to be in fluid communication with the openings and the sensor is capable of detecting a gas in the tubing connectible to at least one of the channels.

78. (Original) The apparatus of claim 72, further comprising a sensor, wherein tubing is connectible to each of the channels to be in fluid communication with the openings and the sensor is capable of detecting a gas in the tubing connectible to at least one of the channels.